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# AQUABAR

The Only Durable  
Cement Waterproofer

NOV 30 1908



THE AQUABAR COMPANY

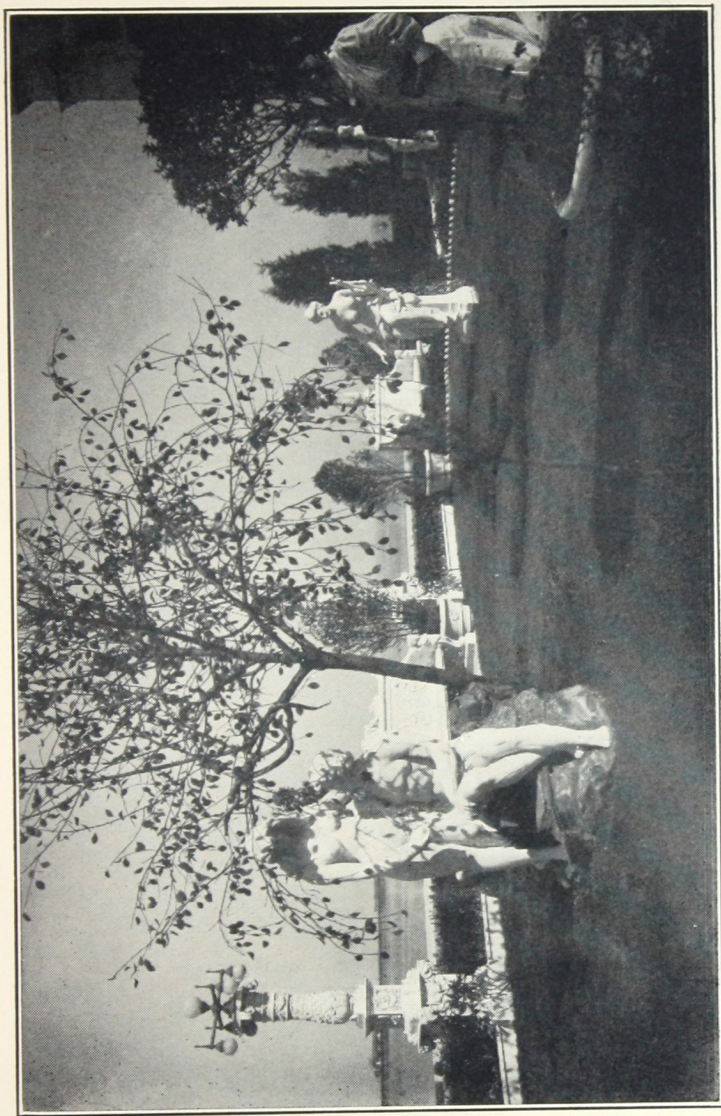
12th AND NOBLE STREETS  
PHILADELPHIA



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OF THE  
SMITHSONIAN INSTITUTION







YOUNG'S PIER, ATLANTIC CITY, N. J.

Garden Furniture Waterproofed with AQUABAR







# AQUABAR

The Only Durable  
Cement Waterproofer



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THE AQUABAR COMPANY

12th AND NOBLE STREETS  
PHILADELPHIA

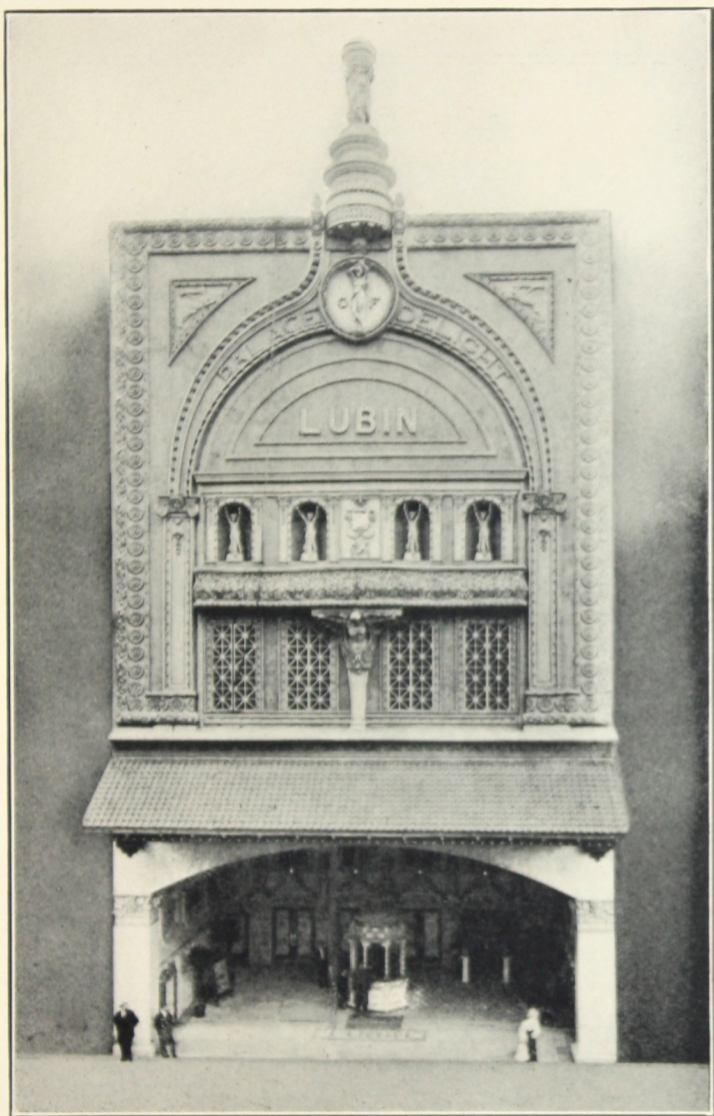


## AQUABAR

Has been used as a cement waterproofer on  
all operations and buildings illustrated  
in this booklet as well as many  
others not illustrated

10 88-35196 TCF





LUBIN PALACE OF DELIGHT—PHILADELPHIA, PA.

Entire Front of Cement, Waterproofed with AQUABAR

10 22-B 5176 TCF

# A Q U A B A R

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**Aquabar**, as its name implies, is a bar, a stop or obstruction to water, and is such an obstruction to its passage through cement or concrete as will make it absolutely impervious to moisture.

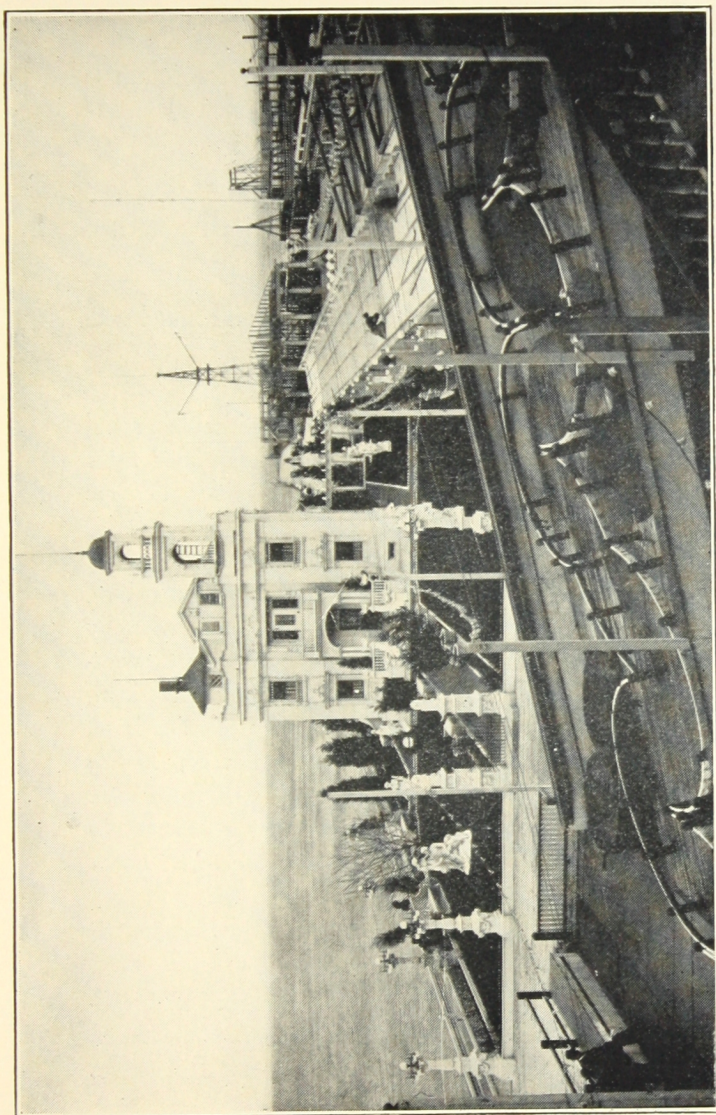
**Aquabar** is a solution with which any hydraulic or building cement may be tempered, and it is a practical impossibility to force water through mortar or concrete so treated, even under heavy pressure.

**Aquabar** has been tested by engineers; builders have used it; and practical men in all branches of constructive testify to its efficiency in waterproofing cement and cement structures, and find it to be the only material that will absolutely and permanently render cement mortar waterproof.

**Aquabar** is a paste-like solution of such composition as will never evaporate from or lose its obstructive qualities in cement or concrete work from age, and it in no wise affects or decreases its tensile strength.

**Aquabar's** only action is that of filling all the voids or pores to such an extent as to make the cement mortar when set entirely moisture and waterproof, and cement, when mixed with **Aquabar**, may be applied as a surface coating, or may be used in joints, in mass as a concrete, or as a facing for concrete work, and may be





CAPTAIN JOHN YOUNG'S RESIDENCE, YOUNG'S PIER, ATLANTIC CITY, N. J.

House and Garden Furniture Made of Concrete Waterproofed with AQUABAR



manipulated with the same freedom as water-mixed cements or mortar, permitting even greater deliberation in its applications.

Heretofore, all efforts to secure water-tightness in cement and concrete construction have involved one of the three following expedients :

- 1st. By adjusting the sizes of sand and stone, and the proportion of water mixed in the mortar.
- 2nd. By external coating of surfaces.
- 3rd. By layers of waterproofed paper cemented with bitumen.

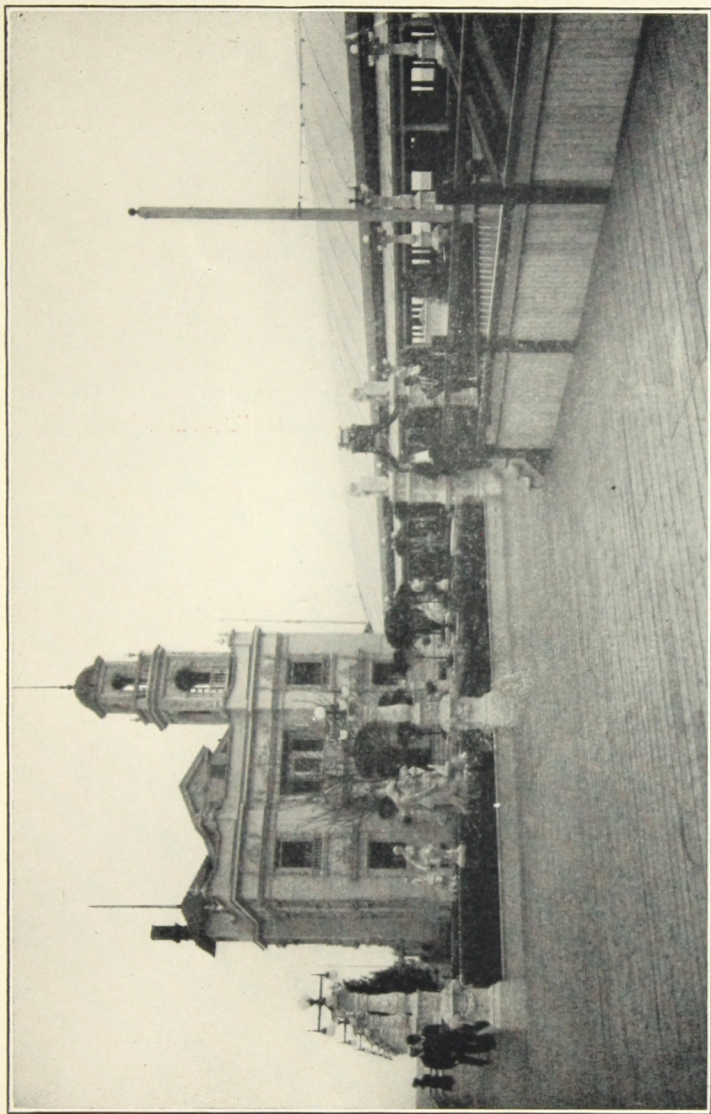
All the above methods impose additional labor and cost while the surface treatment may be nullified by a few hours' exposure to the sun, and an accidental escape of gas may ruin an asphaltic paper.

All the above methods are of a doubtful nature, but an ideal method has been discovered whereby cement can be made impermeable in all its parts, without interfering with the progress of the laying, and adding little or no cost to the mixing. This we claim is all covered in **Aquabar**, which is a solution of a paste-like consistency, and by the simple process of diluting the same with water, per directions, it will render the cement absolutely impervious to dampness or water even under high pressure. Moreover, **Aquabar** can be handled by unskilled labor on account of the simplicity of mixing.

**Aquabar** can be used in the construction of concrete blocks, retaining walls, reservoirs, concrete tanks, tunnels, subways, and the basement floors of structures under the water level.

**Aquabar** is not affected by age and the strength of cement is not in the least affected by its use.





CAPTAIN JOHN YOUNG'S RESIDENCE, YOUNG'S PIER, ATLANTIC CITY, N. J.

North Elevation

Read what a celebrated chemical engineer, who has thoroughly investigated the composition and qualities of **Aquabar**, has to say of its properties and possibilities:

## RICHARD K. MEADE

Chemical Engineer

Analytical and Consulting Chemist

Nazareth, Pa., Feb. 13, 1907.

AMERICAN CEMENT WATER-PROOFING CO.

1213 Filbert Street, Philadelphia.

*Gentlemen:*—I have fully investigated the water-proofing compound which you call "**Aquabar**" and propose to manufacture, and I find it a safe and efficient method of rendering concrete impervious to water.

Below you will find a synopsis of my experiments resulting in this opinion:

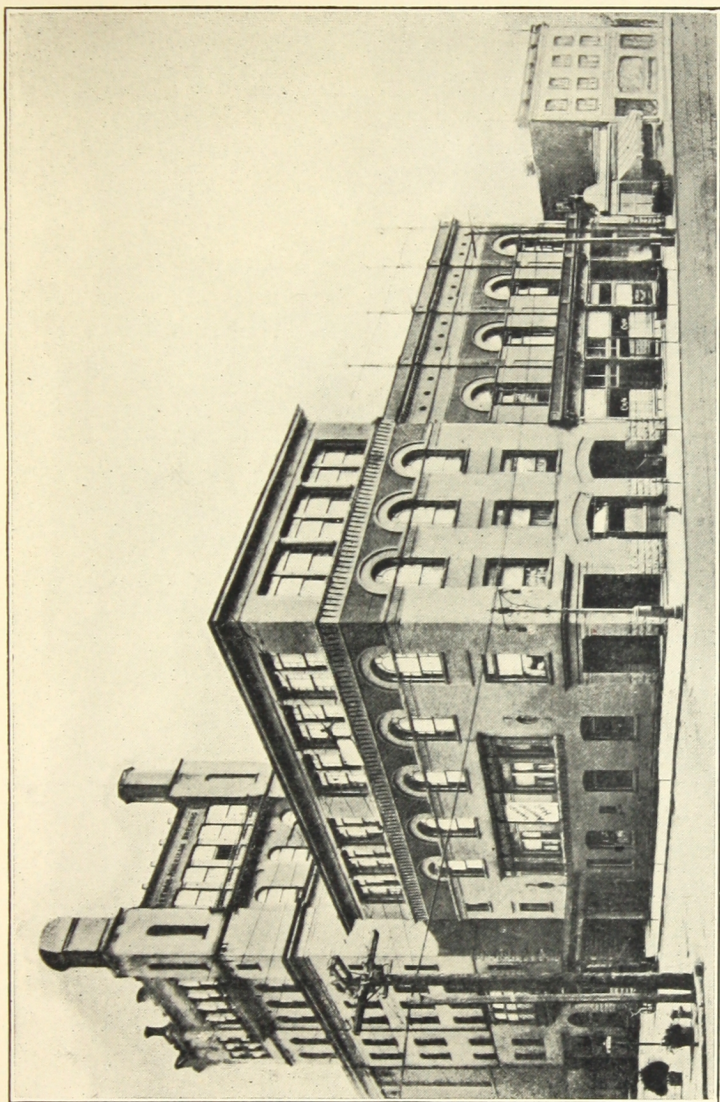
### WATER-PROOFING PROPERTIES

Cubes of mortar were made by mixing sand and cement in the proportion of 3 to 1 respectively, using **Aquabar** for gauging the concrete. The cubes were 3 inches square and were allowed to harden 2 weeks in air. They were then immersed entirely in water for 24 hours, at the end of which they were removed from the water, dried with a towel and weighed. They were found to have absorbed only 1.1 per cent. of their weight of water.

Cubes of concrete made similar to the above, except that no waterproofing compound was used, when subjected to this test gained 9.4 per cent. in weight.

Small vessels of concrete, made from a mixture of 1 part cement and three parts sand gauged with **Aquabar**, allowed to float on water are now, at the end of 6 weeks, still floating, having been continuously upon the surface of the water during this time. These vessels are





GERMAN-AMERICAN BREWING CO. BUILDING, BUFFALO, N. Y.

AQUABAR Used Throughout

cylindrical in shape, 4 inches in diameter and 8 inches deep, with walls and bottom  $\frac{1}{4}$  inch thick. They were loaded with lead slugs so that they are immersed in water to within 1 inch of the top. Their bottoms are dry inside, and the water has never percolated through the concrete to the inside of the vessels.

A vessel similar in shape to the above, but not waterproofed, placed in water sank in 2 minutes, no slugs being in it to hasten the sinking.

A plate of the same concrete as that used for the cubes waterproofed with **Aquabar**, 4 inches in diameter and  $\frac{1}{2}$  inch thick, moulded into the end of a 4 inch pipe, allowed no water to percolate through it when subjected to a head of 50 feet.

A plate of unwater-proofed concrete subjected to this test allowed the water to squirt through in small jets.

#### EFFECT ON THE STRENGTH OF CONCRETE

Sand briquettes were made up both with and without **Aquabar** and subjected to the usual tensile strength tests.

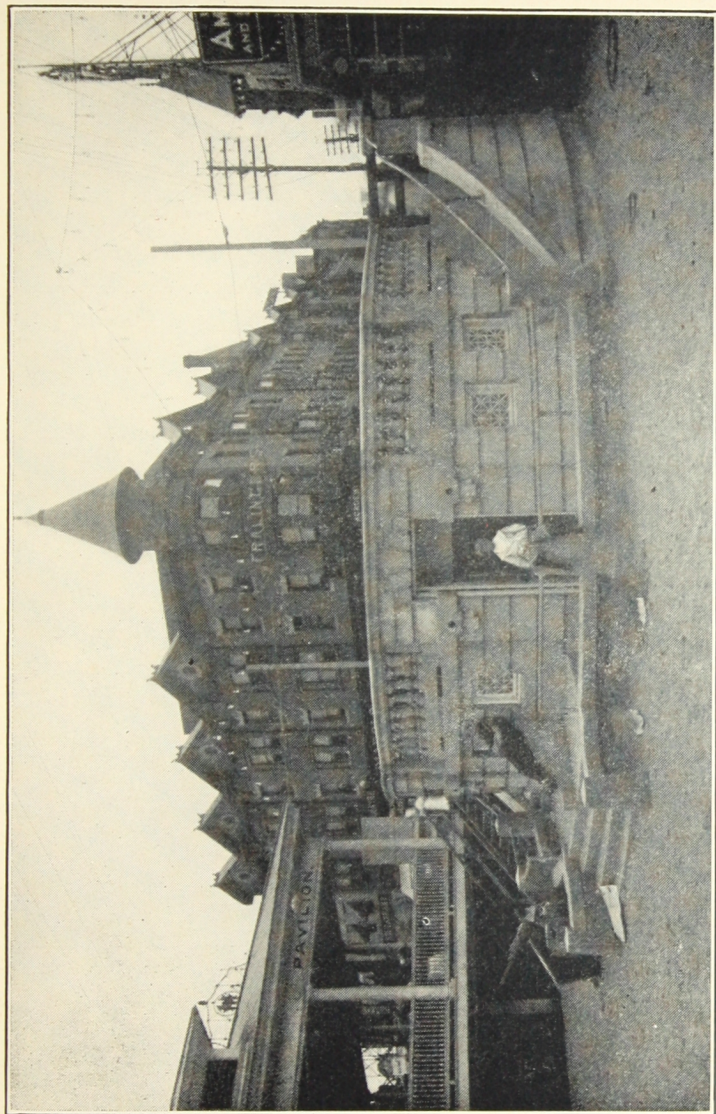
#### STRENGTH OF SAND BRIQUETTES

(1 Cement, 3 Sand)

With Aquabar		Without Aquabar	
7 days	28 days	7 days	28 days
290	402	315	425
302	396	312	418
306	396	310	412
294	418	325	436
297	390	302	412
<hr/>		<hr/>	
Av. 298	Av. 400	Av. 313	Av. 421

The differences are so slight that they may be neglected, as a sand mortar showing 298 lbs. in 7 days and 400 lbs. in 28 days is strong enough for the most exacting concrete work.





REST PAVILION, ATLANTIC CITY, N. J.

Made Waterproof with AQUABAR

## EFFECT ON STEEL

A piece of bright steel plate, embedded in concrete, waterproofed with **Aquabar**, showed at the end of 28 days on removal no signs of pitting or corrosion and had lost nothing in weight. It was bright and free from rust.

## CONCLUSIONS

The experiments under the heading "Waterproofing Properties" clearly show that **Aquabar** is an efficient waterproofing agency, not only for concrete building blocks, cement bricks, cement roofs, etc., but also for cisterns, stand pipes, deep reservoirs, cement conduits, etc., when the concrete work must be waterproof under pressure of water.

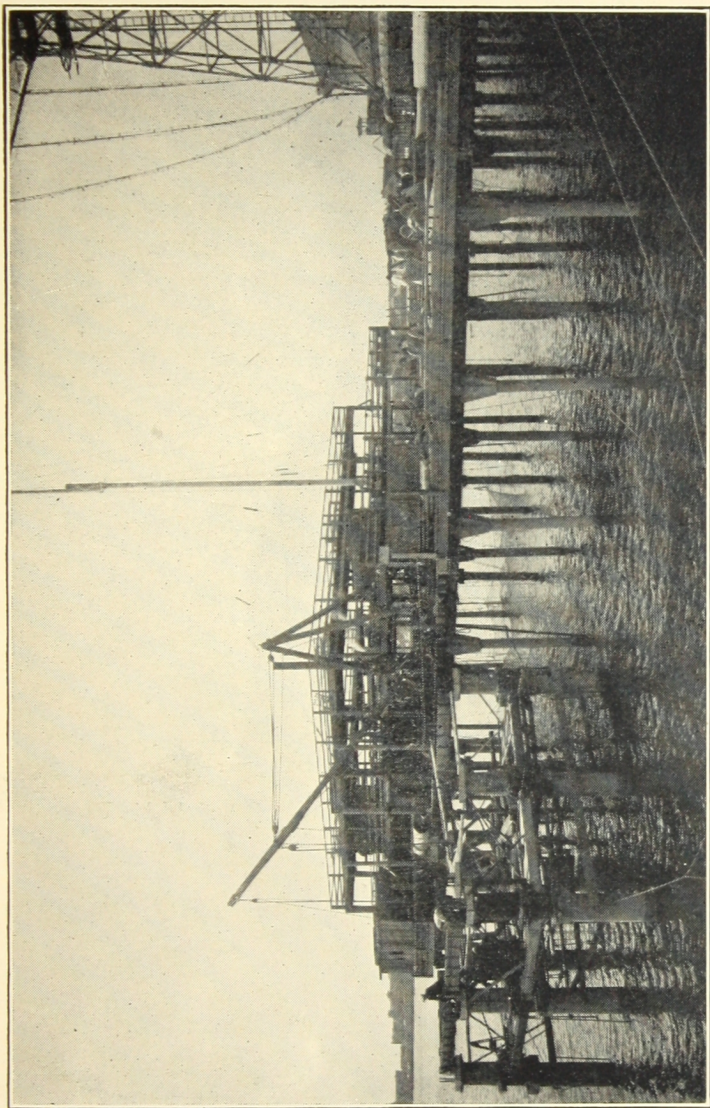
The waterproofing compound, **Aquabar**, does not to any practical degree injure the strength of concrete in which it is used. Any engineer would readily sacrifice 5 per cent. in strength to have his concrete work impervious to water.

**Aquabar** does not attack or rust steel, and may be used safely with concrete in which expanded metal, rods, bars, etc., are to be imbedded.

Yours very truly,

(Signed) RICHARD K. MEADE.





YOUNG'S PIER, ATLANTIC CITY, N. J.

All Piling of Concrete Waterproofed with AQUABAR

# AQUABAR

## A PARTIAL LIST OF BUILDINGS WHERE AQUABAR HAS BEEN USED

YOUNG'S PIER, Cost \$1,000,000 Atlantic City, N. J.  
Captain John Young, Owner

MILLER & KRAUSE'S ABBATOIR, Philadelphia, Pa.  
LINING AND TANK AT RESERVOIR, Wilmington, Del.  
REST PAVILION, Atlantic City, N. J.  
H. A. Stout, Architect

TURKISH BATH, HOTEL ILESWORTH, Atlantic City, N. J.  
H. A. Stout, Architect

ELEVATOR PIT, Philadelphia, Pa.  
Building 10th and Oxford Sts.  
Wm. Steel & Sons Co., Builders

GLOUCESTER HIGH SCHOOL  
J. S. Rogers & Co., Builders, Stanwick, N. J.

RESIDENCE, MR. SGHELLINGER Cape May, N. J.  
Lloyd Titus, Architect

RESIDENCE, Metuchen, N. J.  
John W. Barwell, Inc., Builders

TORRESDALE CONDUIT Filtration Plant Philadelphia, Pa.  
Cassius E. Gillette, Chief Engineer

ATHLETIC BASE BALL PARK, Philadelphia, Pa.  
Cost \$1,000,000 William Steel & Sons, Builders

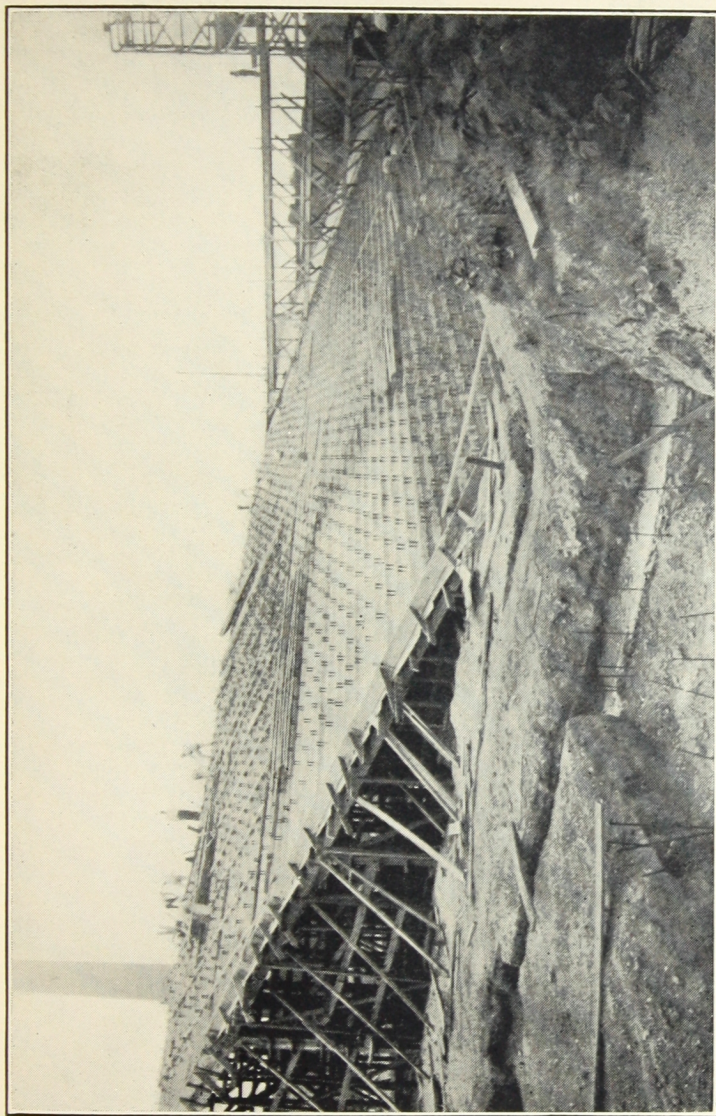
SOLDIERS AND SAILORS MONUMENT, Pittsburg, Pa.  
Cost \$500,000 P. W. Finn, Builder

GERMAN AMERICAN BREWING CO., Buffalo, N. Y.

MARINE OFFICERS' BUILDING Philadelphia, Pa.  
U. S. Navy Yard, League Island  
B. Ketcham & Sons, Builders

LUBIN PALACE OF AMUSEMENT,  
1214 Market Street, Philadelphia, Pa.  
Smith, Harrison Co., Builders





LEFT FIELD BLEACHERS, ATHLETIC BALL PARK, PHILADELPHIA, PA.

Top or Finish Coat of Cement Waterproofed with AQUABAR, making it possible to utilize the space beneath for storage or garage purposes.



TELEPHONE NO. TOPPER 324.

# Maltosia

PURE MALT FOOD BEER

BREWED BY THE

GERMAN-AMERICAN BREWING CO.

COR. MAIN & HIGH STS.

Buffalo, N. Y. 5/9/08.

The Aquasbar Co.,

12th & Noble Sts.,

Philadelphia, Pa.

Gentlemen:

In reply to yours of March 13th, would say that we have had very satisfactory results with "Aquasbar" in our new storage building, and cheerfully recommend it. We enclose cut of our plant in shape of postal card.

Yours truly,

GERMAN-AMERICAN BREWING CO.

*Lehmann*

All agreements subject to delays occasioned by strikes, accidents or other causes beyond our control.

JOHN W. BARWELL, INC.

CONTRACTING PLASTERERS

1133 BROADWAY

Telephone 4097-31

NEW YORK CITY, March 19, 1908

The Aquasbar Company,

Phila., Pa.

Gentlemen:-

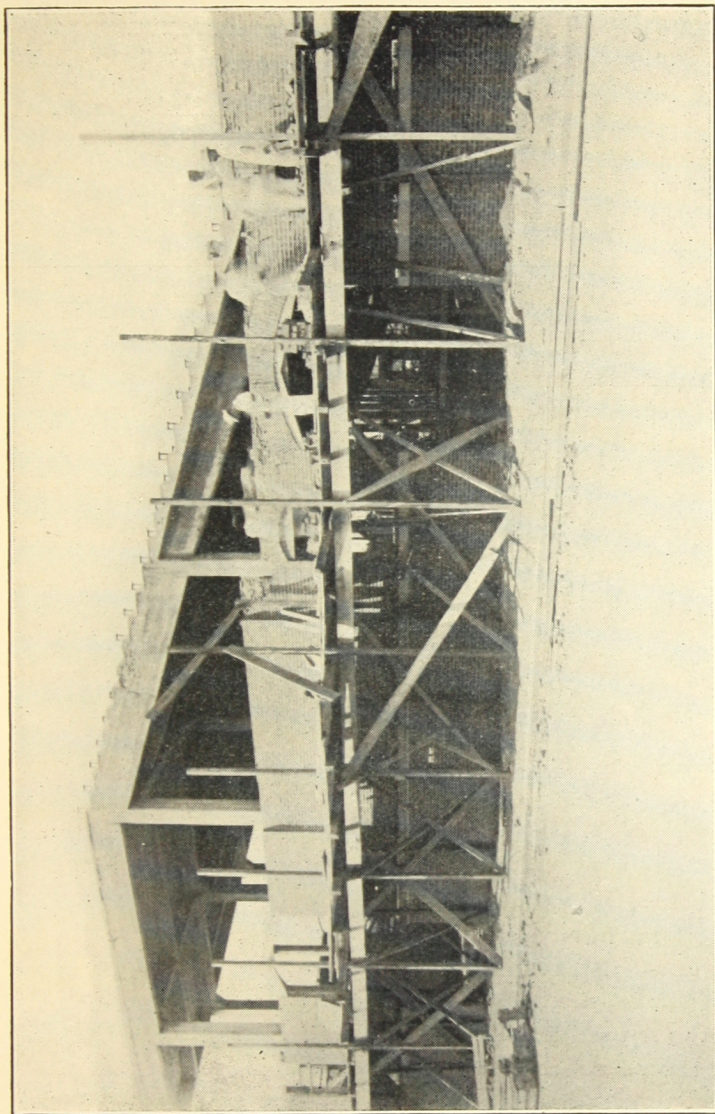
We take pleasure in stating that the Aquasbar waterproofing which we used in the stucco work on Mrs. L. D. Barwell's residence at Metuchen, N. J. has made an absolutely waterproof wall and has proved satisfactory in every respect.

Yours very truly,

JOHN W. BARWELL, INC.

*John W. Barwell*





BLEACHERS, ATHLETIC BALL PARK, PHILADELPHIA, PA.

Street Elevation

MARCUS C. ALLEN  
President

WILLIAM J. GILMOUR  
Vice President & Mgr.

HERBERT HORTON  
Secy & Treas.

## GILMOUR-HORTON-ALLEN CO.

ENGINEERS AND CONTRACTORS

MAIN OFFICE  
SANDY HILL, N. Y.  
N. Y. TELEPHONE

ADDRESS ALL COMMUNICATIONS TO THE COMPANY  
NOT TO ANY INDIVIDUAL  
P. O. BOX 92

OSWEGO, N. Y., Mar. 25, 1908. 190....

"The Aquabar Company,"

12 & Noble Streets,

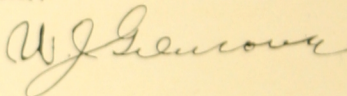
Philadelphia, Pa.

Gentlemen:-

Yours of March 23rd sent to our home office at Sandy Hill just received here with inclosure of a copy of our letter to Lloyd Titus. In reference to the same there isn't any reason why you should not have consent to publish my letter to Mr. Titus as it is absolutely correct and honest statement, and Aquabar when needed is the right thing in the right place and I wish you all kinds of success with it.

Yours truly,

WJC/E



GILMOUR-HORTON-ALLEN CO.

Engineers and Contractors.  
room 7 Masonic Temple.

(copy)

Sandy Hill, N.Y., May 21, 1907.

Lloyd Titus,

Phila., Penna.

Dear Sir:-

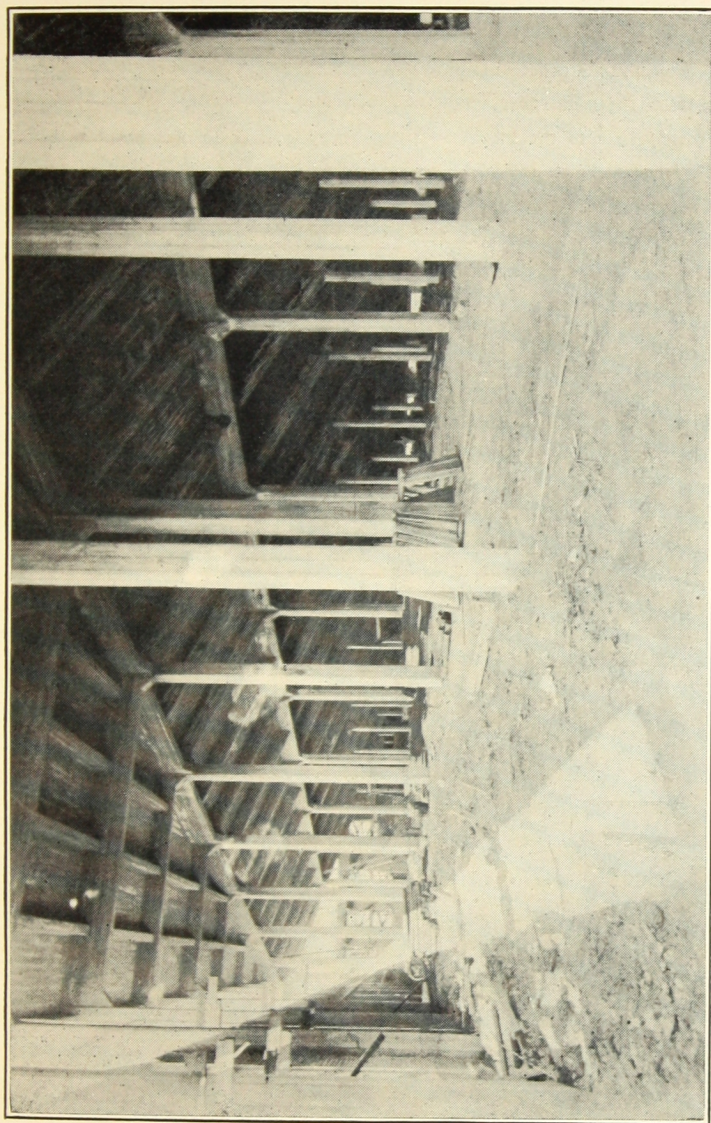
Your favor of May 14 just received as the writer has been out of town; in reference to Aquabar can say that I had the very best results and under the severest test.

Words are inadequate to express my delight at that time and I most highly recommend Aquabar.

Yours truly,

signed: W. J. Gilmour.





SECTION SHOWING BLEACHERS, ATHLETIC BALL PARK, PHILADELPHIA PA

Space Under Bleachers Made Perfectly Dry By Use of AQUABAR



MILLER & KRAUSE  
2162 E. Norris St.

Philadelphia, March 16th 1908.

The Aquabar Co.

12th & Noble Sts., Philadelphia.

Gentlemen.-

It affords us pleasure to write of the merits of both the Herculean Floor Construction and Aquabar used in the construction of our Pickling Room floor.

Previous to the installation of this we could not use the cellar directly under, as the pickling room is constantly flooded with water.

We are more than pleased with same, and after two years of continuous work upon this floor it looks just the same as the day it was finished, therefore, we cannot speak too highly of Aquabar, which was used in mixing the 1" top coat of cement finish flooring.

This floor is absolutely water tight, and our experience with it reveals only the good points whereby we can recommend the use of Aquabar in cement work where water comes in contact with same.

Yours very truly,

*Miller & Krause*

TELEPHONE OFFICE, FORT HILL 1825  
WORKS, BRIGHTON 282-1

A. B. COCHRAN, President and Manager.  
F. J. ARMSTRONG, Vice-President.  
G. W. ARMSTRONG, Secretary and Treasurer.

THE ARMSTRONG CONCRETE SPECIALTY CO.  
INCORPORATED

REINFORCED CONCRETE CONSTRUCTION

CONCRETE BUILDING BLOCKS, GRANULITHIC SIDEWALKS AND STEPS, FOUNDATIONS, CELLARS, RETAINING WALLS, CONCRETE TANKS,  
SILLS, CAPS, AND TRIMMINGS, WATERPROOFING.

SPECIAL ATTENTION GIVEN TO PRODUCTION OF ARTISTIC EFFECTS IN CONCRETE FROM ARCHITECTS' DESIGNS.

WORKS, BRIGHTON, MASS.

OFFICE, 191 DEVONSHIRE STREET.

BOSTON, MASS. March, 3, 1908.

The Aquabar Co.,

Philadelphia, Penn.

Gentlemen:

Your favor of the 2nd inst. relative to sending us a new sample of Aquabar.

If you recollect we wrote you a short time ago stating that the sample which you sent us had been frozen, however before receiving the second sample which you sent, we molded a little tank, using a "plug" tobacco box for the form, with a one-two mix, and the proper proportion of the thawed Aquabar. We let the tank set for one day to dry, then filled it with water and we have had it in our office filled with water ever since, and there has been absolutely no sign of moisture on the outside, and we have taken a great deal of pleasure in showing this sample to architects and others who call. And we assure you that we are thoroughly convinced that Aquabar is a water-proof compound and we shall not hesitate to use it on any job that requires water-proofing.

Of course the season for our work has not yet opened up, but you will undoubtedly hear from us very shortly.

Yours very truly,

ARMSTRONG CONCRETE SPECIALTY CO.

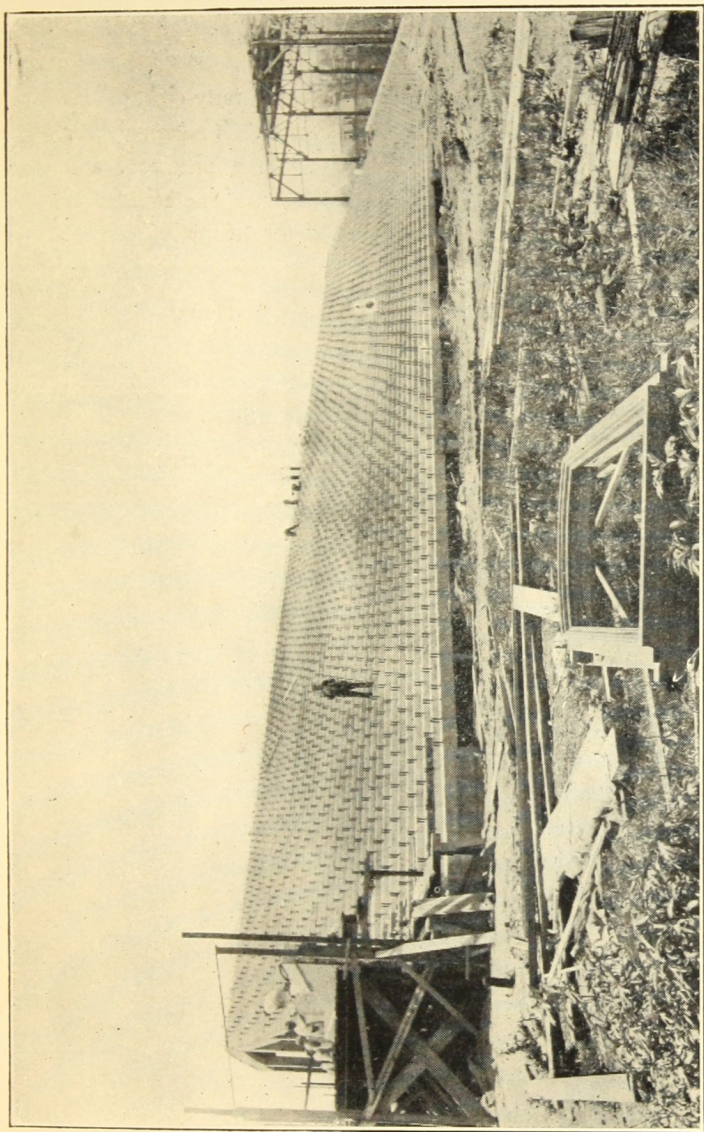
per

*A. B. Cochran*

Pres.

Dict. ABC-D





RIGHT FIELD BLEACHERS, ATHLETIC BALL PARK, PHILADELPHIA, PA.

North View

## DIRECTIONS AND PROPORTIONS

### FOR USING AQUABAR

Mix two gallons of **Aquabar** with forty-eight gallons of water (making a 50 gallon barrel). Thoroughly stir this until all particles of **Aquabar** are dissolved, and thoroughly stir each time before using. The mixture of **Aquabar** and water is then used for tempering cement in place of ordinary water.

A barrel of water and **Aquabar** diluted as above will gauge a sufficient quantity of sand and cement mixed in the proportion of 3 to 1 to cover two hundred (200) square feet of surface one inch thick.

This will vary in proportion to the different Grades of Cement or Sand used.

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## AQUABAR

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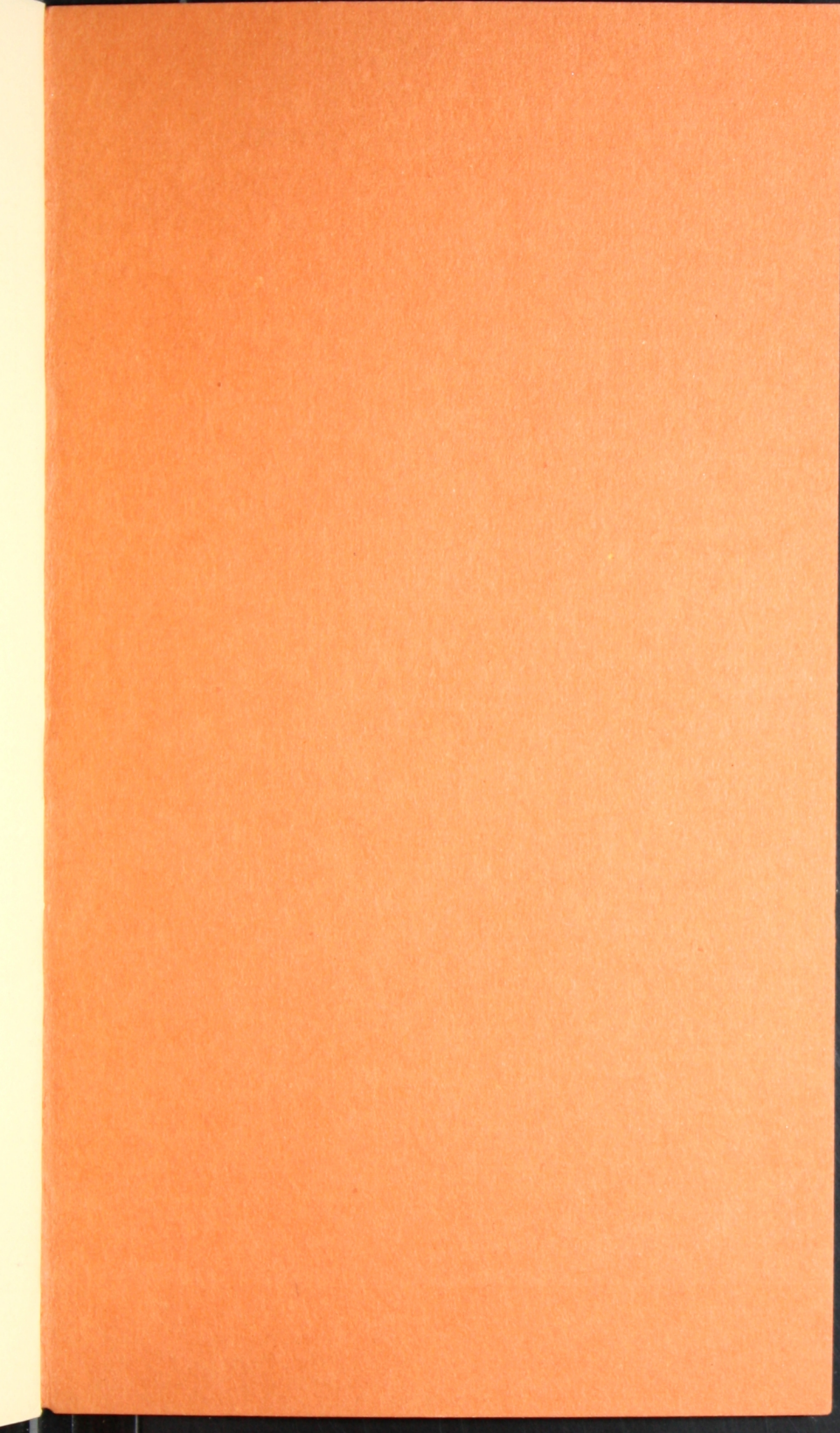
IS NOT SOLD IN  
LESS QUANTITIES  
THAN 2 GALS.  
AND IS SOLD  
F. O. B. PHILA.

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INTERNATIONAL PRINTING CO.  
226 CHESTNUT STREET  
PHILADELPHIA